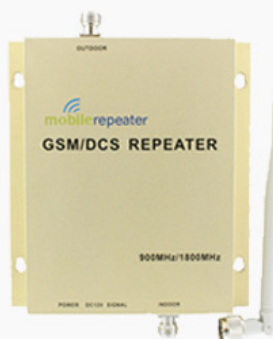




SIGNAL BOOSTER KIT

Installation Manual



We would like to thank you for your purchase. We hope you enjoy your product and we sincerely value your business.

About Mobile Repeater

Mobile Repeater is the world's largest provider of retail signal coverage solutions. We are proud to offer our customers solutions that enhance cellular voice or data signal for any network in the world. Applications range from home/office installations to large-scale commercial projects. Every product we sell is manufactured in-house to ensure the highest quality possible. We have developed the most effective signal coverage solutions by combining over 10 years of experience with our team of manufacturing and engineering staff.

Warning - Safety First

- Shut down the mains power switch. Do not install with live electricity.
- Your voltage has to be within 10% of the AC input of your repeater (240 V).
- Grounding recommended. Use at least a No. 8 AWG copper conductor.
- **Warning:** Avoid your gas lines when grounding your wires.
- **Warning:** Tampering with your mobile repeater will void your warranty. Static electricity discharge can damage inside parts. There are no adjustable parts in the repeater.

Package Contents:



1 x MR Base Unit



1 x External Aerial
with 1xFlat Hook, 4xScrews
and 4xExpansion Screws



1 x 10 Meter Coax
with N male connectors



1 x Whip Aerial
with N male connector



1 x Mains Power Supply

Mobile Repeater Base Unit Options and Upgrades

Mobile Repeater offers a wide range of kits that have different base units. **Regardless of which unit you own, the setup procedure is the same.** Newer models have manual gain controls, while older models just need to be plugged in. The installation procedure is the same otherwise.

MR Tri-Band



MR Dual Band



MR Mini MR



MR PowerMAX



iBoost



Tip: Some kits come with different external aerials. The standard external aerial is a flat panel, however the MR Tri-Band comes with a dome-shaped aerial that does not need to be pointed towards the local mast. Other options also include high gain directional aerials like the MR Yagi. For more information please contact us.

The Tools You'll Need



Phillips Screwdriver



Drill



Cell Phone

Installation Overview

Here's an overview of how your mobile repeater's layout.

Mobile Mast / Base Station

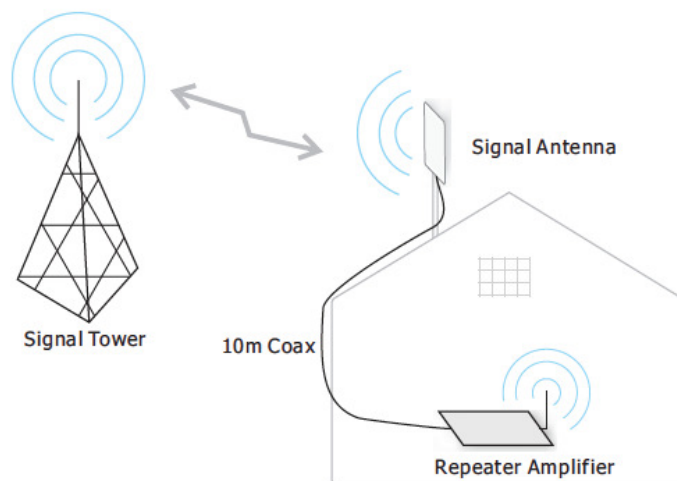
Your mobile phone company broadcasts their signal from a nearby mobile mast. Unfortunately, because of obstructions or interfering signals, you're unable to get a clear connection to the mobile mast while inside your building. Instead, you use a mobile repeater.

Outdoor Aerial

The outdoor aerial establishes a link to the nearest mast. The outdoor aerial will take the signal and feed it into your building through a coax cable. It will also take the signal from inside your building and broadcast it back to the mobile mast.

Mobile Repeater Base Unit & Indoor Aerial

The Mobile Repeater base unit will take the signal it received from the outdoor aerial and boost the signal. It will then re-broadcast the signal into your building through the indoor whip aerial that attaches directly to the base unit. When the repeater base unit is turned on and installation is complete you should receive a strong and clear signal on your mobile phone or broadband device.



Choose Your Outdoor Aerial Location

- 1 The outdoor aerial should always be mounted outdoors. Even if you have a convenient attic or room at roof height, the aerial should still be placed outside for best results.
- 2 Using your mobile phone, walk around your roof and look for a location that gets a good signal. There should be no obstructions between the nearest mobile mast and where you intend to place the outside aerial.
- 3 Your outdoor aerial should be at least 10 meters away from your indoor aerial. Otherwise the two signals will oscillate and interfere with one another.



Tip: For best results, make sure there are no obstructions between your outdoor aerial and the nearest mobile mast.

Install Coax Run from Outdoor Aerial to Base Unit

The coaxial cable is what connects the outdoor signal aerial to the inside mobile repeater base unit. Coaxial cables are specially designed to shield the signals inside the cable from interference from the outside.

To ensure a strong signal, you need to carefully lay the cables to avoid damaging the cable or adding interference. Any kinks, loops or sharp turns can add interference. Stretching the cable or banging the cable will also cause interference. Please ensure that the outdoor aerial is at least 10m away from the Mobile Repeater base unit.

Warning: Avoid Bending the Cable

Bending the coaxial cable can result in distortions. It can cause problems right away if it's a severe kink; or it can cause problems a couple years down the line in mild cases.

Bends wear cause microscopic fractures in the aluminum sheath in the exterior of the cable. In hot and cold weather, the cable's casing can expand and contract. Microscopic tears or cracks caused by bends can later turn into major problems.

Never make sharp bends with the cable and avoid forming loops or links.



Warning: Do Not Tamper With the Equipment

Do not tamper with the aerial, the repeater or the cables. Don't cut the cable or remove connectors. Cutting coaxial cable requires specialized tools and training. Any tampering will void your warranty.



Choose Your Outdoor Aerial Location

When you're selecting where to place your base unit, these are the most important things to keep in mind.

1

Choose a dry, cool, ventilated area. Avoid places with humidity, like the kitchen or the bathroom. Avoid areas like closets. Avoid areas in direct sunlight, which can overheat the base unit.

2

Select a central area. The aerial should be placed as close as possible to the center of where you want reception. The signal from your repeater will broadcast in a circular manner with the whip aerial.

3

Select a location that provides easy access to connect coax from external aerial. You need to be able to wire the cable from the outdoor aerial on the roof to the base unit inside. Ideally you'll place the signal aerial near existing wiring that you can use the thread through the new cable.

4

Select an accessible location. You need to be able to interface with the device as you're setting it up. The device should be easy to access in the future, just in case you need to make adjustments.



Troubleshooting

My signal goes up and down and calls drop.

If you're experiencing intermittent signal issues, that's usually caused by oscillation. In short, that means the signal from your outside aerial and your indoor aerial are "hitting" each other and causing interference.

To fix this issue, move your two aerials farther apart from one another. They should be at least 10 meters away at all times. You can also try adjusting the manual gain settings, as shown above.

In rare cases, other mobile phone signals may be so strong that it's interfering with your signals. To diagnose this, have one person check the signal with their phone in the building while you move the outside aerial around. Find a spot on the roof that gives you a consistent quality signal and then mount your aerial there.

My phone doesn't show increased bars.

The bars you see on your phone aren't always a good indicator of whether or not you're getting a good signal. The bars on your phone are determined by decibels, which is simply the volume of the signal. The *quality* of the signal itself is much more important than the strength of the signal.

In a phone with four bars, each bar represents about 10 dB in signal strength. Often time's new mobile repeater installations will see vast improvements in phone call quality, without necessarily seeing a boost in bars.

Note that the closer you move to the indoor aerial, the more likely you are to have higher bars.



Troubleshooting

? My signal is weak, but my LEDs are green.

This is usually caused by poor signal at the outdoor aerial. If your outdoor aerial isn't getting a good signal, boosting the signal indoors can have a limited result.

Try moving the outdoor aerial around to see if you can get a better signal. Ensure that the aerial it is mounted properly, connections tight and be sure to also check your coax cable for signs of damage.

If you have extremely weak signal outside, you may need to get a higher gain external aerial to help you boost the signal. This can be a frequent problem in areas with woods and trees. If the outdoor signal level is less than three bars we recommend using a high gain Yagi aerial available through our site.

To compensate for low outdoor signal you can mount the aerial on a pole to elevate it above the tree or roofline, or move the aerial to an area where trees don't interfere with the signal. This issue is more frequently caused when a tree or other obstruction is directly in line of sight between an aerial and the mobile mast.

? I can't get signal in some rooms.

This usually means that the building materials in the partition walls are blocking the signal from reaching the room or that your indoor aerial is too far away from the room. You have a few options:

- 1) Try moving your indoor aerial (base unit) around. See if you can get it closer to the weak signal spots without causing another weak spot somewhere else in the house.
- 2) Purchase a stronger base unit. Stronger units can project their signal through walls.
- 3) Use more than one indoor aerial. You can install one aerial in the weaker signal areas and another aerial in the rest of the house.

? Outlines of signal bars are blinking.

If you see a colorless outline of your signal bars while the signal bars are blinking, that means the repeater unit has no input signal.

This could be caused by a number of different issues:



- Your outdoor aerial is defective.
- The coaxial cable isn't securely connected.
- The coaxial cable is defective.
- Your mobile repeater unit is defective.

If you're experiencing this issue when you're installing your repeater for the first time, double-check all your connections. If the problem persists, contact support.

If you're experiencing this issue after using your mobile repeater for some time, it's most likely that a part got damaged. For example, lightning damage could short the outside aerial or rodents can chew through coaxial cables.

Check through the entire line of connection from the aerial to the cable to the mobile repeater. Make sure nothing is knocked loose or broken. If the problem persists, contact support.

I'm getting noise or static in my calls.

There are numerous issues that could cause this problem.

1. Try placing a call near the indoor aerial. If you still get noise when you're standing close to the mobile repeater, then the issue is with either the outdoor aerial or the coaxial cable.
2. Try moving your indoor aerial further away from your outdoor aerial. If the signal clears up when you increase the distance, oscillation may be the issue. Find another place for your indoor aerial.
3. Try placing a call while standing next to your mobile aerial, with the aerial switched off. If you get noise while placing the call from your aerial location, move your outdoor aerial.
4. Purchase a new coaxial cable and carefully re-lay the cable. This could clear up the signal if the cable is the issue.
5. If you can receive noise-free calls when you're near the indoor aerial, then you may have a signal strength issue.

The repeater shows strong signal bars, but I get no signal on my phone.

First check to see if the signal bars are empty outlines or full bars. If they're empty outlines that are blinking, see "The Signal Bars Are Blinking" above.



If you're seeing full bars blinking, reduce your gain. Keep reducing your gain until you see solid bars.

If you're seeing strong solid signal bars but aren't able to get a connection on your phone, the most likely cause is external interference.

Here are some possible causes:

- TV or satellite signals. Is there a satellite dish or direct TV dish on your roof? If so, try moving your external aerial further away from the dish. Also make sure the satellite dish is not positioned directly above your indoor aerial.
- Your outside aerial and your indoor aerial are too close to one another. Move them further apart.
- You have coiled coaxial cable. Make sure you don't have any loops or coils between your outside and inside aerial.

? The green LED light is off, but I get reception.

This is perfectly fine. The green LED light is designed to turn on when you're getting a maximum input signal. If the green LED is light, that means you're not getting as strong a signal as you could be getting.

In other words, you'll still be able to use the mobile repeater. Your range might not be as strong as you'd like, but the device will still work. To increase the range or improve reception, try repositioning the outside aerial until the green LED light turns on.

? Calls are dropping and/or I can't place calls.

This could be due to a short circuit in your device, or it could be due to one of the problems outlined above. Start by checking for cable loops and kinks, as well as oscillation issues by moving the indoor unit away from the outdoor unit. If that doesn't resolve the issue, call Mobile Repeater customer support.



Warranty Details

1 Year Limited Manufacturer's Warranty

All Mobile Repeater UK products come with a limited manufacturer's warranty valid for one year. While under warranty, your product is guaranteed to be free from defects that stem from workmanship or materials.

Details on the Warranty

Should your mobile repeater unit become non-operational or defective through normal use while under warranty, Mobile Repeater UK will replace or repair your unit. Your unit may be replaced with a comparable product if the same product is unavailable. Replacement products may be new or refurbished, at Mobile Repeater UK's discretion.

Mobile Repeater UK will bear the costs of all labor, materials and parts for repairs and replacements, as well as shipping costs for sending your new replacements. The cost of shipping the repeater unit to

Mobile Repeater UK will be covered by you.

The warranty on the replacement product will end when the warranty on your original product would have ended. Getting a replacement product does not renew the warranty.

What Does the Warranty Cover?

Your warranty covers:

- Faulty parts.
- Components that are defective out of the box.
- Outside signal aerial
- Main mobile repeater unit
- Coaxial cable.

Note: The coaxial cable is covered under warranty when it's shipped from the manufacturer. However, any damage from stretching, bending, coiling or kinking that occurs while installing the cable is not covered under warranty.

What the Warranty Does Not Cover:

- Damage or accidents caused by the end user. Examples include dropping, hitting, falling or pulling on a cable.



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- Water damage of any sort, including damage from steam or humidity.
- Lightning damage to the outdoor aerial.
- Hail damage, windstorms, fires or any other damage caused by extreme weather.
- Damage to roof during installation.
- Unauthorized repairs. Opening your device will void your warranty
- Any modifications of the device.
- Any attempt to enable the product in a country other than the country that the device was designed for.

A copy of the original purchase receipt is required to file a warranty claim.

This limited warranty excludes all consequential and incidental damage, unless prohibited by local laws.

This limited warranty is in lieu of all other warranties.